

Title (en)  
AIR IONIZATION DISPLAY DEVICE

Title (de)  
LUFTIONISATIONSANZEIGEVORRICHTUNG

Title (fr)  
DISPOSITIF D'AFFICHAGE À IONISATION D'AIR

Publication  
**EP 3951380 A4 20220907 (EN)**

Application  
**EP 21740910 A 20210115**

Priority

- CN 202010057978 A 20200116
- CN 202020125167 U 20200116
- CN 202010048268 A 20200116
- CN 202020099626 U 20200116
- CN 202010049368 A 20200116
- CN 202020125100 U 20200116
- CN 2021072084 W 20210115

Abstract (en)  
[origin: EP3951380A1] An air ionization display device (100), comprising a pulsed light source module (1) and an optical field regulation module (2). The pulsed light source module (1) is configured to generate a plurality of synchronized pulsed light beams; the plurality of pulsed light beams are projected onto the optical field regulation module (2); the optical field regulation module (2) adjusts and converges the plurality of pulsed light beams and ionizes air to form a holographic real image in a display area (200).

IPC 8 full level  
**G01N 27/62** (2021.01); **G02B 26/08** (2006.01); **G02B 26/10** (2006.01); **G02B 27/10** (2006.01); **G02B 30/56** (2020.01); **H01S 3/067** (2006.01); **H01S 3/13** (2006.01); **H01S 3/23** (2006.01)

CPC (source: EP KR US)  
**G01N 27/62** (2013.01 - KR); **G02B 26/08** (2013.01 - KR); **G02B 26/105** (2013.01 - EP KR); **G02B 27/10** (2013.01 - KR); **G02B 27/106** (2013.01 - EP KR); **G02B 27/108** (2013.01 - KR); **G02B 30/56** (2020.01 - EP KR US); **G03H 1/0005** (2013.01 - KR); **G03H 1/02** (2013.01 - KR); **H01S 3/005** (2013.01 - EP KR US); **H01S 3/0071** (2013.01 - KR); **H01S 3/0092** (2013.01 - EP KR); **H01S 3/0407** (2013.01 - KR); **H01S 3/10046** (2013.01 - US); **H01S 3/1024** (2013.01 - US); **H01S 3/1304** (2013.01 - KR); **H01S 3/1307** (2013.01 - EP KR); **H01S 3/2383** (2013.01 - EP KR); **G03H 2001/0088** (2013.01 - KR US); **G03H 2001/0212** (2013.01 - KR); **H01S 3/0071** (2013.01 - EP); **H01S 3/0407** (2013.01 - EP US); **H01S 3/1304** (2013.01 - EP)

Citation (search report)

- [XYI] US 5871267 A 19990216 - WENDE KLAUS GUSTAV [DE]
- [XAYI] WO 0011513 A1 20000302 - EML EUROP MEDIA LAB GMBH [DE], et al
- [XAYI] US 2017293259 A1 20171012 - OCHIAI YOICHI [JP], et al
- [XAYI] DE 102012014364 B3 20131128 - AUDI AG [DE]
- [Y] US 5367529 A 19941122 - HOLSINGER KEVIN K [US], et al
- [Y] US 2003185255 A1 20031002 - YE JUN [US], et al
- [A] "Coherent Laser Beam Combining", 4 September 2013, WILEY-VCH VERLAG GMBH & CO. KGAA, Weinheim, Germany, ISBN: 978-3-527-41150-4, article MARC HANNA ET AL: "Coherent Laser Beam Combining", XP055945880, DOI: 10.1002/9783527652778.ch09
- [Y] SHELTON ROBERT ET AL: "Active synchronization and carrier phase locking of two separate mode-locked femtosecond lasers", JOURNAL OF MODERN OPTICS, vol. 49, no. 3-4, 1 March 2002 (2002-03-01), LONDON, GB, pages 401 - 409, XP055945744, ISSN: 0950-0340, DOI: 10.1080/09500340110088533
- [A] CRISTIAN MANZONI ET AL: "Coherent pulse synthesis: towards sub-cycle optical waveforms", LASER & PHOTONICS REVIEWS, vol. 9, no. 2, 2 January 2015 (2015-01-02), DE, pages 129 - 171, XP055334865, ISSN: 1863-8880, DOI: 10.1002/lpor.201400181
- See also references of WO 2021143818A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3951380 A1 20220209; EP 3951380 A4 20220907**; JP 2022521909 A 20220413; JP 2023130379 A 20230920; JP 7301992 B2 20230703; JP 7539529 B2 20240823; KR 102651053 B1 20240325; KR 20210148287 A 20211207; KR 20240042206 A 20240401; SG 11202113088T A 20211230; US 2022075315 A1 20220310; WO 2021143818 A1 20210722

DOCDB simple family (application)  
**EP 21740910 A 20210115**; CN 2021072084 W 20210115; JP 2021549105 A 20210115; JP 2023101930 A 20230621; KR 20217035813 A 20210115; KR 20247009374 A 20210115; SG 11202113088T A 20210115; US 202117454942 A 20211115